

Design/build is a classification of practice in the architecture and construction fields in which the same entity both designs and builds a project. Starting in the 1960s, this practice has gradually made its way into the academic environment. Here, students generate a design and actively participate in transforming that design into a real structure or space. Over the past two decades, this pedagogical construct has become increasingly popular in schools of architecture for its ability to deliver a number of critical lessons to students through first-hand experience.

Most academic design/build projects have a similar set of core objectives. These courses commonly “remove design projects from the studio vacuum and push students to reconcile their drawings with real structures they can build, weld, wire, and plumb. They encourage students to work as part of collaborative teams, resolving conflicts, managing finances, and communicating with clients.”¹ Despite the success of many design/build programs, however, its pedagogy has been critiqued in recent studies, most notably in 2011 by Geoff Gjertson.² In a survey of design/build programs across the United States, Gjertson found that less than 15% of the programs responding *required* students to engage with the practice of design/build. This statistic is not surprising given that 93% of the respondents stated that their design/build courses operate in a studio-based model. Typically, a design/build studio is one of several studios offered in a semester to students in a given year of a program. This construct offers only a percentage of the student population the opportunity to engage in this academic forum. The ideal number of students for a design/build studio is also between seven and ten to allow for appropriate division of labor, student focus, and efficiency within the group,³ again limiting the number of students impacted.

This paper presents efforts to expand the influence of the design/build experience within a school of architecture. It examines the strategies utilized over a three-year period to translate the learning experience of design/build studio into a building technology course serving between 40 and 60 students annually. Through the three iterations of the class, several variables have been identified – including project complexity, group size, and partnerships – that have a significant impact on not only the success of the project, but also the learning experience of the students involved. The conclusion presents a series of best strategies for implementing design/build in a high-enrollment architectural course.

¹ Joseph Bilello, "Learning from Construction," *Architecture* 85, no. 8 (1996): 145.

² Geoff Gjertson, "House Divided: Challenges to Design/Build from Within," in *2011 ACSA Fall Conference* (Houston, Texas, October 6, 2011).

³ William Carpenter, *Learning by Building: Design and Construction in Architectural Education* (New York: Van Nostrand Reinhold, 1997). and Gjertson, "House Divided: Challenges to Design/Build from Within."